

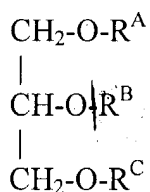
1. A lipid-based drug delivery system for administering an active lysolipid drug substance, which is not a substrate for lysophospholipase, to tissues expressing increased levels of extracellular phospholipase A2, comprising:

- (a) a prodrug lipid derivative having:
  - (1) An alkyl-linked aliphatic group of a length of at least 7 carbon atoms;
  - (2) An acyl-linked organic radical having at least 7 carbon atoms, and
  - (3) A hydrophilic moiety, and
- (b) at least one lipopolymer or glycolipid.

15. A method for selectively drug targeting to neoplastic cells within a mammal having an extracellular phospholipase A2 activity which is at least 25% higher compared to the normal activity in said areas, by administering to the mammal in need thereof an efficient amount of the lipid-based drug delivery system according to claim 1.

57. A lipid-based drug delivery system for administering an active lysolipid drug substance, which is not a substrate for lysophospholipase, to tissues expressing increased levels of extracellular phospholipase A2, comprising:

- (a) a prodrug lipid derivative having the formula:



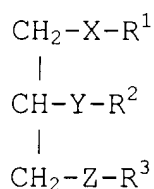
wherein  $\text{R}^{\text{A}}$  is an ether-linked fatty acid chain having at least 7 carbon atoms,  $\text{R}^{\text{B}}$  is an acyl-linked fatty acid chain having at least 7 carbon atoms and  $\text{R}^{\text{C}}$  is chosen from the group consisting of phosphatidic acid, phosphatidyl choline, phosphatidyl glycerol and phosphatidyl serine; and

- (b) at least one lipopolymer or glycolipid.

64. A method for selectively drug targeting to neoplastic cells within a mammalian body having a extracellular phospholipase A2 activity which is at least 25% higher compared to the normal activity in said areas, by administering to the mammal in need thereof an efficient amount of the lipid-based drug delivery system according to claim 57.

72. A lipid-based drug delivery system for administering an active lysolipid drug substance, which is not a substrate for lysophospholipase, to tissues expressing increased levels of extracellular phospholipase A2, comprising:

(a) a prodrug lipid derivative having the formula:



wherein

X and Z are O;

Y is -OC(O)-, Y then being connected to R<sup>2</sup> via either the oxygen or carbonyl carbon atom;

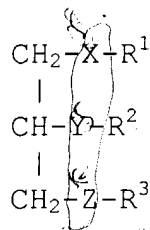
R<sup>1</sup> and R<sup>2</sup> are each independently an alkyl group (CH<sub>2</sub>)<sub>n</sub>CH<sub>3</sub>, where n is any one of 11-29; and

R<sup>3</sup> is an acyl-linked fatty acid chain having at least 7 carbon atoms and R<sup>c</sup> is chosen from the group consisting of phosphatidic acid, phosphatidyl choline, phosphatidyl glycerol and phosphatidyl serine; and

(b) at least one lipopolymer or glycolipid.

71. A lipid-based drug delivery system for administering an active lysolipid drug substance, which is not a substrate for lysophospholipase, to tissues expressing increased levels of extracellular phospholipase A2, comprising:

(a) a prodrug lipid derivative having the formula:



wherein

X and Z independently are selected from O, CH<sub>2</sub>, NH, NMe, S, S(O), and S(O)<sub>2</sub>;

Y is -OC(O)-, Y then being connected to R<sup>2</sup> via either the oxygen or carbonyl carbon atom;

R<sup>1</sup> is an aliphatic group of the formula Y<sup>1</sup>Y<sup>2</sup>; where Y<sup>1</sup> is -(CH<sub>2</sub>)<sub>n1</sub>-(CH=CH)<sub>n2</sub>-(CH<sub>2</sub>)<sub>n3</sub>-(CH=CH)<sub>n4</sub>-(CH<sub>2</sub>)<sub>n5</sub>-(CH=CH)<sub>n6</sub>-(CH<sub>2</sub>)<sub>n7</sub>-(CH=CH)<sub>n8</sub>-(CH<sub>2</sub>)<sub>n9</sub>, and the sum of n1+2n2+n3+2n4+n5+2n6+n7+2n8+n9 is an integer of from 9 to 29; n1 is zero or an integer of from 1 to 29, n3 is zero or an integer of from 1 to 20, n5 is zero or an integer of from 1 to 17, n7 is zero or an integer of from 1 to 14, and n9 is zero or an integer of from 1 to 11; and each of n2, n4, n6 and n8 is independently zero or 1; and Y<sup>2</sup> is CH<sub>3</sub> or CO<sub>2</sub>H; where each Y<sup>1</sup>-Y<sup>2</sup> independently may be substituted with halogen or C<sub>1-4</sub>-alkyl,

R<sup>2</sup> an alkyl group (CH<sub>2</sub>)<sub>n</sub>CH<sub>3</sub> where n is any one of 11-29; and

R<sup>3</sup> is an acyl-linked fatty acid chain having at least 7 carbon atoms and R<sup>C</sup> is chosen from the group consisting of phosphatidic acid, phosphatidyl choline, phosphatidyl glycerol and phosphatidyl serine; and

(b) at least one lipopolymer or glycolipid.